DAB
(3,3'-diaminobenzidine)

Since first introduced by Graham and Karnovsky[1], numerous procedures for its use in histochemistry, immunohistochemistry, Western and dot blots have been described[2-4]. In the presence of horseradish peroxidase and hydrogen peroxide, DAB oxidatively polymerizes to an insoluble brown polymer. The color can be modified and intensified by treatment with metal salts of silver, copper, nickel, cobalt and osmium[5]. DAB is a suspected carcinogen and must be handled with caution. MOSS, Inc. supplies DAB as a stable liquid concentrate eliminating the necessity of handling a potentially hazardous material. The stabilization system is unique and prevents formation of partially oxidized DAB excluding nonspecific binding to other heme containing proteins so often observed with powdered DAB preparations. The concentrate can be diluted in appropriate peroxide containing buffers providing the researcher with the capability of formulating any of the numerous published DAB reaction systems. The most common procedure suggests diluting the DAB 1:50 in a 100 mmol/L Tris-HCl buffer, ph 7.6, and adding H_2O_2 to a final concentration of 0.01%. Incubation times range from 5-15 minutes. Prolonged reaction time will result in non-specific staining of other heme proteins.

DAB-10	10 mL
DAB-100	100 mL
DAB-500	500 mL
DAB-1000	1000 mL

REFERENCES

1. Graham RC Jr, Karnovsky MJ: J Histochem Cytochem 14: 291, 1966

2. Lewis PR, Knight DP: Staining Methods for Sectioned Material, in: Practical Methods in Electron Microscopy, AM Glauert, ed. North-Holland, Amsterdam, 1977

3. Larsson L-I: Immunocytochemistry: Theory and Practice CRC Press, Inc., Boca Raton, 1988

4. Gallyas F, Gores T, Merchenthaler I: J Histochem Cytochem 30: 183, 1982

5. Hsu S-M, Soban E: J Histochem Cytochem 30: 1079, 1982